

REMARKS

This is in response to the Office Action mailed January 15, 2008. In the Office Action, claims 1-6, 8-12 and 23-29 were pending and rejected. With this amendment, claims 1-6, 8-12, and 28 are cancelled; claims 23, 25, and 29 are amended; and the remaining claims are unchanged in the application.

Independent claim 23, among others, was rejected in Section Two of the Office Action under 35 U.S.C §102(b) as being allegedly anticipated by JP 11-271,269 (hereinafter JP '269). With respect to claims 23 and 28, Section Three of the Office Action asserted that JP '269 provides a working electrode 5 including  $\text{CeO}_2$ . Applicants respectfully note that claim 28 was written in Markush form to be directed to a working electrode constructed from one of ceria, or its solid solution doped with at least one mixed valency element. Applicants respectfully note that as the subject matter of independent claim 28 was amended into independent claim 23, the Markush alternate was resolved in favor of a ceria solid solution doped with at least one mixed valency element. Applicants respectfully note that the Office Action does not indicate that JP '269 provides such a ceria solid solution doped with at least one mixed valency element as set forth in amended independent claim 23. Accordingly Applicants respectfully submit that amended independent claim 23 is allowable by over JP '269. Further, Applicants respectfully submit that dependent claims 24-27 and 29 are allowable as well by virtue of their dependency, either directly or indirectly, from allowable independent claim.

Section Twenty of the Office Action indicated that independent claim 23, among others, was also rejected under 35 U.S.C §103(a) as being unpatentable over Makino et al. (U.S. Patent 5,676,811-hereinafter Makino) in view of GB 2 104 666

(hereinafter "GB '666") and/or Isenberg (U.S. Patent 4,702,971). Applicants respectfully note that section Twenty-one of the Office Action concedes that Makino does not explicitly disclose the use of a ceria-containing fluorite group of materials for the working electrode. The Office Action then asserts that GB '666 discloses in an alternate oxygen sensor a working electrode constructed out of mixed ion/electron conductor such as a mixture of  $\text{PrO}_{2-x}$  or  $\text{TbO}_{2-x}$  and  $\text{CeO}_{2-x}$  and teaches that such an electrode is less susceptible to poisoning and provides rapid response even in  $\text{SO}_x$  containing gasses. There is no indication by the Office Action that GB '666, or Makino teach or suggest a working electrode constructed from a ceria solid solution doped with at least one mixed valency element. Accordingly, Applicants respectfully waive that amended independent claim 23 is allowable over Makino, GB '666, and/or Isenberg.

In conclusion, Applicants respectfully submit that the entire application is now in condition for allowance. Reconsideration and favorable action are respectfully requested.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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